

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A method of forming a coat on an inner surface of a bearing having a cylinder shape, including the steps of:
rotating the bearing in its circumferential direction; and
applying a coating material to form the coat on the inner surface of said rotating bearing by injecting the coating material from a nozzle by airless spray painting.
2. A method of forming a coat on an inner surface of a bearing according to claim 1, wherein the rotational speed of said bearing in said step of applying the coating material is a circumferential speed of 0.2 m/sec or more.
3. A method of forming a coat on an inner surface of a bearing according to claim 1, further including the step of inserting said nozzle into an inner side of the bearing so as to inject said coating material from the inner side of the bearing.
4. A method of forming a coat on an inner surface of a bearing according to claim 2, further including the step of inserting said nozzle into an inner side of the bearing so as to inject said coating material from the inner side of the bearing.
5. A method of forming a coat on an inner surface of a bearing according to any one of claims 1, wherein the pressure applied to the coating material for injecting the material from said nozzle is 1 to 10 MPa.

6. A method of forming a coat on an inner surface of a bearing according to any one of claims 2, wherein the pressure applied to the coating material for injecting the material from said nozzle is 1 to 10 MPa.
7. A method of forming a coat on an inner surface of a bearing according to any one of claims 3, wherein the pressure applied to the coating material for injecting the material from said nozzle is 1 to 10 MPa.
8. A method of forming a coat on an inner surface of a bearing according to any one of claims 4, wherein the pressure applied to the coating material for injecting the material from said nozzle is 1 to 10 MPa.
9. A method of forming a coat on an inner surface of a bearing according to any one of claims 1, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.
10. A method of forming a coat on an inner surface of a bearing according to any one of claims 2, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.
11. A method of forming a coat on an inner surface of a bearing according to any one of claims 3, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.
12. A method of forming a coat on an inner surface of a bearing according to any one of claims 4, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.

13. A method of forming a coat on an inner surface of a bearing according to any one of claims 5, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.

14. A method of forming a coat on an inner surface of a bearing according to any one of claims 6, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.

15. A method of forming a coat on an inner surface of a bearing according to any one of claims 7, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.

16. A method of forming a coat on an inner surface of a bearing according to any one of claims 8, further including the step of circulating said coating material in a sealed state in a coating material supplying means for supplying the coating material to said nozzle.

17. An apparatus for forming a coat on an inner surface of a bearing having a cylinder shape, comprising:

a rotating means for rotating the bearing in its circumferential direction;

an applying means consisting of a nozzle for applying a coating material for forming the coat on the inner surface of said bearing, the applying means injecting the coating material by airless spray painting; and

a coating material supplying means for supplying the coating material to said nozzle, the coating material supplying means applying pressure to the coating material in a sealed state and circulating the coating material.

18. An apparatus for forming a coat on an inner surface of a bearing according to claim 6, wherein said nozzle is adapted to be inserted into an inner side of said bearing to inject the coating material from the inner side of the bearing.

19. An apparatus for forming a coat on an inner surface of a bearing according to claim 7, wherein said nozzle can reciprocate along an axial direction of said bearing.

20. An apparatus for forming a coat on an inner surface of a bearing according to claim 6, wherein

said rotating means comprises a jig for holding said bearing and a rotor to which the jig is attached, the rotor rotating together with the jig, and wherein said jig comprises a first jig of a semi-cylinder shape having a bearing receiving surface on an inner surface side thereof for receiving said bearing, and a second jig having a bearing receiving surface on an inner surface side thereof, the bearing receiving surface being opposite to said bearing receiving surface of the first jig, the second jig having a semi-cylinder shape of which outer diameter is larger than that of said first jig, and being attached to said rotor while holding said bearing between the first and second jigs.